AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-13. (canceled).

14. (currently amended): Method of treatment by carboxylation, before shaping, of a metal surface in oxidizing conditions in relation to the metal, comprising bringing the said metal surface selected from the group consisting of zinc, iron, aluminum, copper, lead, alloys thereof, galvanized steel, aluminium-coated steel, and copper-coated steel into contact with an organic or hydro-organic aqueous bath comprising at least one organic acid in free form or in the form of salt to form a conversion layer by carboxylation, wherein:

- the said organic acid is a saturated or unsaturated aliphatic monocarboxylic or dicarboxylic acid,
- the said organic acid is in solution and/or in emulsion in the bath at a concentration greater than 0.1 mole/litre and 1.5 mole/litre or less,
- the pH of the bath is acidic, wherein said oxidizing conditions are obtained by addition to the bath of a chemical agent adapted to the metal to be treated.

15. (currently amended): Method of treatment by carboxylation, before shaping, of a metal surface in oxidizing conditions in relation to the metal, comprising bringing the said metal surface selected from the group consisting of zinc, iron, aluminum, copper, lead, alloys thereof, galvanized steel, aluminium-coated steel, and copper-coated steel into contact with an organic or hydro-organic aqueous bath comprising at least one organic acid in free form or in the form

of salt to form a conversion layer by carboxylation, wherein:

- the said organic acid is a saturated or unsaturated aliphatic monocarboxylic or dicarboxylic acid,
- the said organic acid is in solution and/or in emulsion in the bath at a concentration greater than 0.1 mole/litre and 1.5 mole/litre or less,
- the pH of the bath is acidic, wherein said oxidizing conditions are obtained by causing an electric current to circulate between the said surface previously immersed in the bath and at least one backing electrode which has been likewise immersed.

16. (currently amended): The method as claimed in ~~Claim 1~~Claim 14, wherein the concentration of organic acids in the bath, the conditions of use of the said bath and the oxidizing conditions in relation to the metal to be treated are adapted to obtain on the metal surface a carboxylation coating with a weight per unit area of between 1 and 6 g/m^2.

17. (currently amended): The method as claimed in ~~Claim 1~~Claim 14, wherein, at the end of the treatment of the said surface, a post-treatment is carried out with the aid of a bath containing multivalent cations in the +3 oxidation state of a rare earth metal at a concentration greater than or equal to 1×10^{-3} mole/litre.

18. (currently amended): A method for temporary protection of a metal surface against corrosion, comprising subjecting the metal surface to the carboxylation treatment as claimed in ~~Claim 1~~Claim 14.

19. (currently amended): A method of producing a shaped metal sheet having a metal

surface selected from the group consisting of zinc, iron, aluminium, copper, lead, alloys, galvanized steel, aluminium-coated steel, and copper-coated steel, comprising subjecting said metal sheet to the carboxylation treatment of as claimed in ~~Claim 1~~Claim 14, and oiling and shaping the said treated metal sheet.

20. (previously presented): The method as claimed in Claim 19, wherein said metal sheet is made from steel coated with zinc or with a zinc alloy and is shaped by stamping.

21. (currently amended): The method as claimed in ~~Claim 1~~Claim 14, wherein a metal element in the metal surface is dissolved when the surface is brought into contact with the organic or hydro-organic aqueous bath.

22. (currently amended): The method as claimed in ~~Claim 1~~Claim 14, wherein said organic acid is heptanoic acid.

23. (currently amended): The method as claimed in ~~Claim 1~~Claim 14, wherein said organic or hydro-organic aqueous bath comprises at least two organic acids in free form or in the form of a salt.

24. (new): The method as claimed in Claim 23, wherein said organic or hydro-organic aqueous bath comprises heptanoic acid and decanoic acid.

25. (new): The method as claimed in Claim 23, wherein said organic or hydro-organic aqueous bath comprises heptanoic acid and undecenoic acid.

26. (new): The method as claimed in Claim 14, wherein said organic acid is a saturated monocarboxylic acid having from 5 to 16 carbon atoms.

27. (new): The method as claimed in Claim 14, wherein said organic acid is an unsaturated monocarboxylic acid having from 10 to 18 carbon atoms.

28. (new): The method as claimed in Claim 14, wherein said organic acid is a saturated dicarboxylic acid having from 4 to 12 carbon atoms.

29. (new): The method as claimed in Claim 26, wherein said organic acid is selected from the group consisting of hexanoic acid, heptanoic acid, octanoic acid, nonanoic acid and decanoic acid.

30. (new): The method as claimed in Claim 27, wherein said unsaturated monocarboxylic organic acid is undecenoic acid, oleic acid or linoleic acid.

31. (new): The method as claimed in Claim 28, wherein said saturated dicarboxylic organic acid is sebacic acid or azelaic acid.

32. (new): The method as claimed in Claim 29, wherein said organic acid is heptanoic acid.

33. (new): The method as claimed in Claim 32, wherein the bath comprises, in addition

to heptanoic acid, decanoic acid or undecenoic acid.

34. (new): The method as claimed in Claim 14, wherein the organic or hydro-organic aqueous bath comprises a co-solvent is ethanol, n-propanol, dimethylsulphoxide, N-methyl-2-pyrrolidone, 4-hydroxy-4-methyl-2-pentanone or diacetone alcohol.

35. (new): The method as claimed in Claim 34, wherein the co-solvent is diacetone alcohol.

36. (new): The method as claimed in Claim 14, wherein the said bath further comprises multivalent cations in the +3 oxidation state of a rare earth metal at a concentration greater than or equal to 1×10^{-3} mole/litre and the pH of the bath being higher than 4.

37. (new): The method as claimed in Claim 36, wherein the said multivalent cation is gadolinium.

38. (new): The method as claimed in Claim 15, wherein said organic acid is a saturated monocarboxylic acid having from 5 to 16 carbon atoms.

39. (new): The method as claimed in Claim 15, wherein said organic acid is an unsaturated monocarboxylic acid having from 10 to 18 carbon atoms.

40. (new): The method as claimed in Claim 15, wherein said organic acid is a saturated dicarboxylic acid having from 4 to 12 carbon atoms.

41. (new): The method as claimed in Claim 38, wherein said organic acid is selected from the group consisting of hexanoic acid, heptanoic acid, octanoic acid, nonanoic acid and decanoic acid.

42. (new): The method as claimed in Claim 39, wherein said unsaturated monocarboxylic organic acid is undecenoic acid, oleic acid or linoleic acid.

43. (new): The method as claimed in Claim 40, wherein said saturated dicarboxylic organic acid is sebacic acid or azelaic acid.

44. (new): The method as claimed in Claim 41, wherein said organic acid is heptanoic acid.

45. (new): The method as claimed in Claim 42, wherein the bath comprises, in addition to heptanoic acid, decanoic acid or undecenoic acid.

46. (new): The method as claimed in Claim 15, wherein the organic or hydro-organic aqueous bath comprises a co-solvent is ethanol, n-propanol, dimethylsulphoxide, N-methyl-2-pyrrolidone, 4-hydroxy-4-methyl-2-pentanone or diacetone alcohol.

47. (new): The method as claimed in Claim 46, wherein the co-solvent is diacetone alcohol.

48. (new): The method as claimed in Claim 15, wherein the said bath further comprises multivalent cations in the +3 oxidation state of a rare earth metal at a concentration greater than or equal to 1×10^{-3} mole/litre and the pH of the bath being higher than 4.

49. (new): The method as claimed in Claim 48, wherein the said multivalent cation is gadolinium.

50. (new): The method as claimed in Claim 15, wherein the concentration of organic acids in the bath, the conditions of use of the said bath and the oxidizing conditions in relation to the metal to be treated are adapted to obtain on the metal surface a carboxylation coating with a weight per unit area of between 1 and 6 g/m^2.

51. (new): The method as claimed in Claim 15, wherein, at the end of the treatment of the said surface, a post-treatment is carried out with the aid of a bath containing multivalent cations in the +3 oxidation state of a rare earth metal at a concentration greater than or equal to 1×10^{-3} mole/litre.

52. (new): A method for temporary protection of a metal surface against corrosion, comprising subjecting the metal surface to the carboxylation treatment as claimed in Claim 15.

53. (new): A method of producing a shaped metal sheet having a metal surface selected from the group consisting of zinc, iron, aluminium, copper, lead, alloys, galvanized steel, aluminium-coated steel, and copper-coated steel, comprising subjecting said metal sheet to the carboxylation treatment of as claimed in Claim 15, and oiling and shaping the said

treated metal sheet.

54. (new): The method as claimed in Claim 53, wherein said metal sheet is made from steel coated with zinc or with a zinc alloy and is shaped by stamping.

55. (new): The method as claimed in Claim 15, wherein a metal element in the metal surface is dissolved when the surface is brought into contact with the organic or hydro-organic aqueous bath.

56. (previously presented): The method as claimed in Claim 15, wherein said organic acid is heptanoic acid

57. (previously presented): The method as claimed in Claim 15, wherein said organic or hydro-organic aqueous bath comprises at least two organic acids in free form or in the form of a salt.

58. (previously presented): The method as claimed in Claim 57, wherein said organic or hydro-organic aqueous bath comprises heptanoic acid and decanoic acid.

59. (previously presented): The method as claimed in Claim 57, wherein said organic or hydro-organic aqueous bath comprises heptanoic acid and undecenoic acid.